



# Sound In Microsoft Products

"Function first"

Steve Ball and Benjamin Bethurum  
Microsoft's Sound V-Team

## Steve Ball

Windows Experience Team: Devices and Media  
Senior Program Manager Lead

## Benjamin Bethurum

Windows Mobile : Mobile Communications Experience (MCX)  
User Experience Designer | UX Sound Designer



## Appendix

Introduction to Sound

Purposes for Sound

How to Talk About Sound

"Silence *is* golden if sound events outweigh the information they are presenting to the end user.

Sounds can be very annoying...

Sounds must function-first and have a purpose or definitive need.

**"Sound is** Expressive, informational, invisible and ubiquitous  
Sound is a integral part of our daily lives. Sound is the voice of our everyday tools,  
appliances, and electronics. Sound creates an emotional bond  
between us and our inanimate products."

Today's world is saturated with "sonic  
icons" conveying a spectrum of  
information which describe our everyday  
events.

More and more of our  
products need sound...  
And the product teams are pinging us.

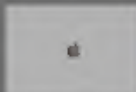
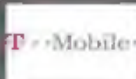


Purposes for Sounds in Products

Purposes for sound in products

Resistive basic phenomena



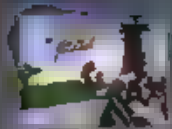


Purchase low priced products

les. These dividends are paid

















# Sound Exercise



# How to *Talk* About Sound

Melody

A.

Rhythm  
B.

# Coloration



Density

D.



# Principles for sound design




1. The first part of the paper is devoted to a discussion of the

main results of the paper. The second part is devoted to a

$$\frac{\partial \phi}{\partial x} = \frac{\partial \phi}{\partial x} + \frac{\partial \phi}{\partial y} + \frac{\partial \phi}{\partial z} + \frac{\partial \phi}{\partial t}$$

1

2



# The Process of Sound Design



Product Description

Define (Function,  
Define (Stage)

Document Scenario/C

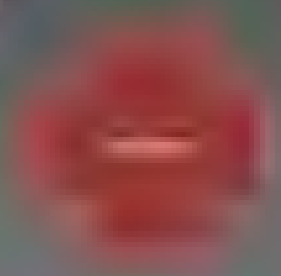
Key Words (Brand

Gr. No.

The Gathers

Sound  
Boards

"The" Sound





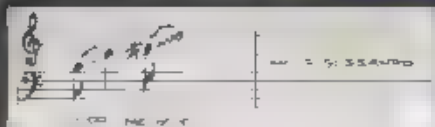
2014



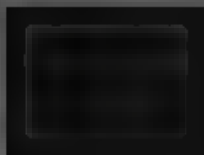


to startup so

2014



1000



## Ordinary Experience

Plat. 11.8

Proclus on Sen. Addressess

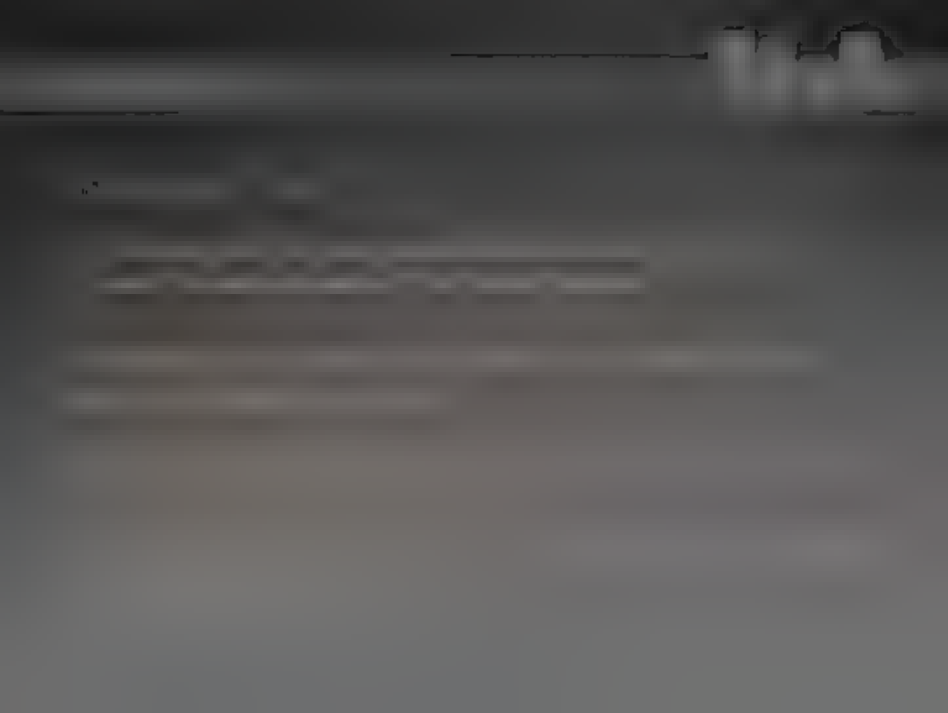
Sen. Enchiridion

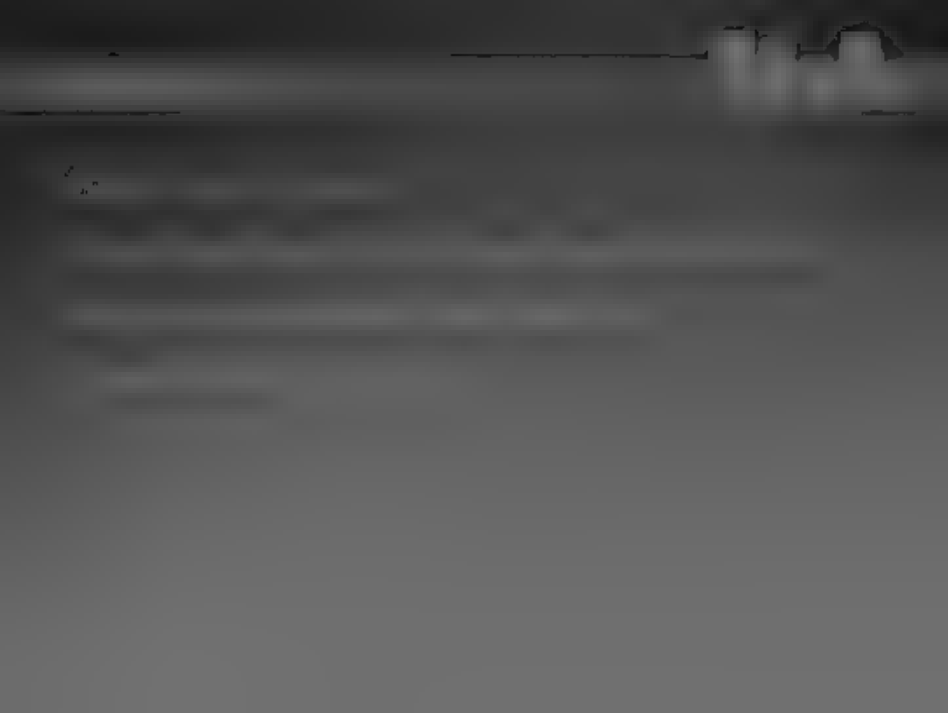
Seneca's Epistles

- Reasonable Price
- Generally Favored in the Market









11

12

What we are supporting today...

- Windows Vista
- Windows 7.0
- Windows Mobile 6.0
  - Extended Audio Packages
  - Themes, WMOC Ring Tones
- Office 14
- Response Point (MSR-Edinburgh)
- Zune



What we are supporting tomorrow...

- PowerPoint (Office 14)
- Live Messenger (Signature Sounds)
- PopFly
- Keyboard Team
- Windows 7.0 : Expanded Sound Schemes
- Your product...?

## Call to action:

- Be smart: learn the process and language of sound design
- Contact us: even if you plan to outsource your sound design
  - SteveBal
  - BenBeth



Questions?